SUMMARY OF THE PROFICIENCY TESTING SUBCOMMITTEE MEETING SEPTEMBER 19-20, 2000

The Proficiency Testing Subcommittee of the National Environmental Laboratory Accreditation Conference (NELAC) met at the USEPA Science Center in Fort Meade, MD on Tuesday and Wednesday, September 19-20, 2000. The meeting was led by the Subcommittee chair, Mr. Larry Jackson of Environmental Quality Management. *The main purpose of this meeting was to open a dialogue between proficiency testing (PT) stakeholders (PT Providers, Accrediting Authorities and laboratories) and discuss implementation and standardization issues related to the NELAC PT Program.*

INTRODUCTION

Mr. Jackson began the meeting by introducing himself and asked all participants to do the same. Following introductions, Mr. Jackson summarized the issues that had been raised during the NELAC VI PT Committee session in Williamsburg, VA in June. Issues from that meeting included:

- Accrediting authorities (AAs) and assessors are looking for efficient ways to correlate PT requirements with PT results.
- Laboratory confusion in ordering PT samples.
- What PT Providers should provide to laboratories and AAs.
- Interpretation of PT Provider reports.
- Errors in PT reports and corrective action required.
- Definition of the roles of laboratories, AAs and PT Providers.

OPEN DISCUSSION OF ISSUES

Participants came with additional issues to be addressed and the group decided to list all issues by affected party (PT provider, accrediting authority, laboratory). Issues identified are listed below:

Issues affecting PT Providers

1. How to send PT reports to Accrediting Authorities (e.g. certified or priority mail)
2. How to report multiple method data (can these be reported on the same report?)
3. DMRQA reporting issues
4. EPA database issues (e.g. qualitative result reporting)

5. How to report zeroes, non-detects; how to differentiate not evaluated from false positives and false negatives
6. How to score zeroes, non-detects
7. How to meet customer's needs – vendor should not dictate what labs need
8. Educational needs to laboratories and AAs regarding PT requirements from both AAs and NELAC.
9. Additional PTOB/PTPA
10. Lack of a uniform NELAC Scope of Accreditation for laboratories

Issues affecting Accrediting Authorities

1. Definition of "quick response"/corrective action study and availability.
2. Basic reporting information – complete lab demographics, EPA code #, study dates prominently located on report.
3. Links for multiple page reports – page # of # and lab name or code and report identifier.
4. How to capture PT results into AA database (currently most AAs deal with paper reports).
5. Uniform reporting of results (e.g. alphabetical listing of VOAs, metals, large groups of analytes).
6. Obtaining PT reports from PT Providers.
7. How to process multiple method data.
8. Labs should not tell PT Providers to send PT results to AAs that are not needed – these can count against the lab.

Issues affecting Laboratories

1. Mixes of PT sample – labs want to only analyze what they need.
2. PT Providers not rotating compounds in PT samples.
3. Labs are not getting credit for non-detected analytes.
4. Study dates need to be clearly marked on reports.
5. Differences in PT Provider service.
6. Being able to report multiple methods per analyte (need all methods evaluated).
7. Clear reporting directions.
8. Clear ordering information.
9. Method reporting (uniform coding system).

10. Increase in cost and penalties (5-month minimum penalty for missing 2/3) – need to be able to use corrective action samples.
11. Organic analyte by analyte scoring – need percentage score by analyte group for PT field of testing.
12. Orthophosphate and other analytes where USEPA National Standard criteria does not work (some metal criteria too tight).
13. Timing and availability of NELAC PT FOT RCRA list analytes.
14. PT reports not being sent to correct or all AAs – labs need confirmation from PT Provider.
15. Labs need to know source material of PT sample.
16. Timeliness of PT reports from PT Providers.

The NELAC PT Committee reviewed the three lists and determined which issues fell under the purview of the committee. The remaining issues were reviewed for duplication and then prioritized by the group. Four major issues were identified that the group felt could be addressed and potential solutions provided.

MAJOR ISSUES TO BE ADDRESSED

1. Data reporting issues

    - Zeroes, non-detects
    - Multiple methods

3. "Quick response"/corrective action studies

    - Definition
    - Acceptance by Accrediting Authorities

3. Report format

4. Analyte/analyte groups for PT field of testing

MAJOR ISSUE DISCUSSION AND RESOLUTIONS

1. Data reporting issues

    - Zeroes, non-detects: The group discussed the problems with reporting data to both PT providers and accrediting authorities. The subcommittee determined that there are four ways to report results to a PT provider: quantitative number, less than a quantitative number or detection limit, zero, leave the box completely blank. This reporting impacts how the PT result

is scored and what is reported back to the laboratory and to the accrediting authority. A working group will be formed to draft a frequently asked question (FAQ) for the ways a lab can report a result and the way the result is scored and reported.

- Multiple methods: Both laboratories and accrediting authorities need multiple method data for SDWA analytes only. Accrediting authorities are receiving more data than they need to see and this can potentially count against labs. The NELAC PT Committee previously made a recommendation to the NELAP AA group on how to meet the PT requirements for both NELAC (by matrix) and SDWA (by method). This FAQ will be reviewed by the data reporting working group. Labs felt that there should be an option to report multiple methods to PT providers and to AAs if they will accept them. PT providers should do whatever the lab tells them to do for sending results to AAs. The issue of what constitutes a valid PT study came up. The subcommittee recommends that any results reported and scored by a PT provider in a study and reported back to the lab in a normal sequence study should define a valid study. This information will be included in the FAQ on multiple methods.

The following participants volunteered for the working group on data reporting issues: Tom Coyner (chair), Melissa McNamara, Chuck Wibby and Ralph Obenauf.

3. "Quick response"/corrective action studies

Ms. Marykay Steinman started the discussion by presenting a draft of a FAQ where a "quick response"/corrective action study could be used as long as the samples met all NELAC requirements. In reality, there are no samples currently available as "quick response" that meet all NELAC requirements. The group revisited the issue of using old PT samples for corrective action purposes. This is needed to keep labs in business if and when they experience a PT failure. The original language voted in to Chapter 2 that prohibits PT providers from reusing PT samples was developed when PT samples were only available from the EPA and studies were only offered 2-4 times per year. With the current multiple provider system, there are numerous samples available and the potential for a lab to receive a sample that it has seen in the past is very remote. A working group will be formed to review the NELAC standards and draft proposed language for the NELAC PT Committee to evaluate. The following participants volunteered for the working group on "quick response"/corrective action studies: Bennett Osborne (chair), Anand Mudambi, Tom Coyner, Chuck Wibby, Steve Arpie, Bill Hall and Phil Worby.

4. Report format

This issue brought up the definition of the roles and responsibilities of the stakeholders in the NELAC PT program. Labs think that PT providers should do the lab's job of knowing what needs to be ordered and analyzed. Accrediting authorities think PT providers should do the AA's job of knowing which analytes to report to the AA and which analytes to report to the lab. The biggest problem appears to be with the labs who do not understand the NELAC requirements as they pertain to ordering, analyzing and reporting results. PT providers are required to report and score exactly which results were submitted to them. PT providers have a contractual obligation to the

laboratory and the laboratory has an obligation to the AA. When a lab specifies an AA, the PT provider has an obligation to provide results to the AA in any format specified by the AA. This is written in the NELAC standards. However, the AAs are not committing to a format and when asked by PT providers, the AA says that everything is fine or they haven't looked at the PT reports. The group decided to form a third working group to evaluate report format. The following participants volunteered for the working group on report format: Bill Hahn (chair), Mike Miller, Cindy Nettrour, Marykay Steinman, Matt Caruso, Vanaja Sivakumar and Larry Jackson (assessor standpoint).

5. Analyte/analyte groups for PT field of testing

   This issue was not addressed by the PT Subcommittee. The NELAC PT Committee is currently in discussions with Chapter 1 – Program, Policy and Structure regarding proposing a change to the scope of accreditation. Depending upon the proposed change, the PT committee could also propose a change to the current PT field of testing. Since the scope of accreditation needs to come first, it would be premature to discuss a potential change to the PT field of testing now. This issue will be discussed at length during the NELAC VIi meeting in both the PT and Program, Policy and Structure sessions.

CONCLUSION

The PT Subcommittee meeting was officially adjourned at which time the three working groups assembled and spent time meeting. Working group reports are due to Mr. Larry Jackson and Ms. Barbara Burmeister by October 6, 2000 so they can be addressed by the NELAC PT Committee during their October 12th teleconference.

Attachment A

ACTION ITEMS

PROFICIENCY TESTING SUBCOMMITTEE MEETING
SEPTEMBER 19-20 15, 2000

Item No.	Action	Date to be Completed
1.	The working group for report formats will draft a report to the PT Committee and send to Mr. Larry Jackson and Ms. Barb Burmeister.	10/06/00
2.	The working group for "quick response"/corrective action studies will draft a report to the PT Committee and send to Mr. Larry Jackson and Ms. Barb Burmeister.	10/06/00
3.	The working group for data reporting will draft a FAQ for reporting data to the PT Provider and to the AA and send to Mr. Larry Jackson and Ms. Barb Burmeister.	10/06/00

Attachment B

PARTICIPANTS
PROFICIENCY TESTING SUBCOMMITTEE MEETING
SEPTEMBER 19-20, 2000

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